



ALASKAN OIL, INC.
NYSDEC VOLUNTARY CLEANUP AGREEMENT
(INDEX NUMBER D7-0002-95-09)
MAIN & WEST AMES STREETS
MEXICO, NEW YORK
SPILL ID #9700653

GROUNDWATER MONITORING SERVICES

1<sup>ST</sup> QUARTER 1999

# ALASKAN OIL, INC. MAIN & WEST AMES STREETS MEXICO, NEW YORK

SPILL ID #9700653

# GROUNDWATER MONITORING SERVICES 1<sup>ST</sup> QUARTER 1999

### PREPARED FOR:

Alaskan Oil, Inc. 120 Wilkinson Street Syracuse, New York

&

New York State Department of Environmental Conservation

### PREPARED BY:

Certified Environmental Services, Inc. 1401 Erie Boulevard East Syracuse, New York

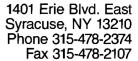
March 1, 1999

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### 1.0 EXECUTIVE SUMMARY

On behalf of Alaskan Oil, Inc. (AOI), Certified Environmental Services, Inc. (CES) is pleased to submit this report of groundwater monitoring services associated with the AOI property located at Main & West Ames Streets, Mexico, New York. This site is included as part of the Multi-Site Response Program/Voluntary Cleanup Agreement (Agreement), Index Number D7-0002-95-09, between Alaskan Oil and the New York State Department of Environmental Conservation (NYSDEC). Following the excavation of petroleum-contaminated soil in January 1998, CES recommended four quarters of groundwater monitoring, see Soil Excavation and Site Investigation Report dated April 7, 1998. This report contains groundwater quality data representing the first quarter 1999 and the fourth part of the groundwater monitoring program.

During the most recent groundwater sampling event on February 4, 1999, groundwater samples were collected and transported to CES' laboratory for volatile analysis in accordance with United States Environmental Protection Agency (USEPA) Method 8021 and semi-volatile analysis in accordance with USEPA Method 8100. The referenced analytical methodologies are acceptable to the New York State Department of Health (NYSDOH), the New York Department of Environmental Conservation (NYSDEC) and/or the USEPA. In accordance with the NYSDEC Voluntary Cleanup Agreement (Index Number D7-0002-95-09), only the chemicals of concern specified in Table 2-1 in Section 2.3 of Appendix C should be considered. These chemicals of concern are comprised of Benzene, Toluene, Ethylbenzene, mixed Xylenes and Benzo(a)Pyrene. However, due to the NYSDEC recent concerns involving Methyl-t-Butyl Ether (MTBE), AOI has elected to report this compound as well. Results from laboratory analyses conducted on the groundwater samples collected on February 4, 1999 and during the previous three quarters indicate compliance with NYSDEC Water Quality Standards and Guidance Values for the chemicals of concern with the exception of MW-5. Various low-level concentrations of Benzene have been detected in MW-5. A concentration of 5.9ug/L of Benzene was detected in the groundwater collected from MW-5 on February 4, 1999. In addition, MTBE has been detected in MW-2, 4 and 5.

The contoured groundwater elevation data illustrates a northwesterly flow pattern. Evaluation of nearby receptors reveals that the site and vicinity is serviced with a municipal water supply. The residence located across West Ames Street is cross gradient from the site. Monitoring well MW-5 is located in close proximity to the residence. Both storm and sanitary sewers as well as municipal water lines are located in Route 104 and West Ames Streets and services the homes in the immediate area.



### 2.0 GROUNDWATER SAMPLING

On February 4, 1999, CES collected groundwater samples from seven groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7) located at Main & West Ames Streets in Mexico, New York.

### Groundwater Monitoring Well Sampling Procedures

The following procedures were utilized to obtain groundwater samples from monitoring wells MW-1 through MW-7:

- 1. Prior to the initiation of evacuation activities, each well was visually inspected for signs of damage, tampering or any other unusual observations.
- 2. Water levels were measured to the nearest 1/100th of a foot using an electronic water level indicator. The measurement was noted on the sample characterization sheet to determine the volume of water in the well. The water level indicator probe and associated cable were cleaned between wells to prevent cross contamination.
- 3. Water in the well was checked for temperature and pH using portable field instrumentation.
- 4. After completing initial field measurements, each well was evacuated using dedicated PVC bailers in a manner which created the least turbidity. Approximately three (3) to five (5) well volumes of water was removed from each well, or until the well went dry.
- 5. The wells were allowed to recharge prior to collecting samples. Field parameters were again checked using the portable field instrumentation. Field instrumentation was calibrated at the beginning of the day and periodically checked and recalibrated in accordance with the manufacturers specifications.



### 2.0 GROUNDWATER SAMPLING (Cont'd)

### Groundwater Monitoring Well Sampling Procedures (Cont'd)

- 6. Samples were collected in the appropriate bottles along with the required preservatives for the analyses to be performed.
- 7. Trip blanks and replicate samples were collected and submitted to the laboratory along with the samples.
- **8.** Sample Characterization/Chain-of-Custody forms were completed prior to samples leaving the site.
- 9. Samples were packed in shipping cartons and placed on ice to keep samples cool during transport to the laboratory. Upon arriving at the laboratory, the samples were signed for by CES' Log-In personnel to maintain the chain of custody. Each sample was assigned an identification number (Log Number) for tracking purposes.

Upon completing sample acquisition efforts, the collected samples were transported to CES' laboratory facility located at 1401 Erie Boulevard East in Syracuse, New York for analyses. CES is certified by the New York State Department of Health (NYSDOH) under the Department's Environmental Laboratory Approval Program (ELAP -Laboratory ID No. 11246).

### 3.0 LABORATORY ANALYSES

Water samples were analyzed utilizing the following methods:

- USEPA Method 8021 (Volatile Organics)
- USEPA Method 8100 (Semi-Volatile Organics)



### 3.0 LABORATORY ANALYSES (Cont'd)

The referenced analytical methodology is acceptable to the NYSDOH, the NYSDEC and/or the USEPA.

### 4.0 GROUNDWATER MONITORING: RESULTS FROM LABORATORY ANALYSES

Results from the USEPA Methods 8021 and 8100 laboratory analyses conducted on the groundwater samples collected from monitoring wells MW-1 through MW-4, MW-6 and MW-7 on February 4, 1999 did not identify the presence of the Voluntary Cleanup Agreement defined *chemicals of concern* at concentrations which exceed NYSDEC Water Quality Standards and Guidance Values. However, laboratory analyses conducted on the groundwater sample collected from monitoring well MW-5 detected a concentration of 5.9ug/L Benzene which exceeds the NYSDEC Water Quality Standards and Guidance Values. In addition, levels of MTBE have been detected in the groundwater samples collected from MW-2, 4 and 5.

### 5.0 GROUNDWATER ELEVATION DATA

The general direction of groundwater flow has been estimated based on groundwater elevations measured at the monitoring wells on February 4, 1999. Groundwater elevation data suggests a northwesterly groundwater flow direction. A groundwater contour map representing groundwater elevations measured on February 4, 1999 is illustrated on Figure 2 of Appendix A. A summary of the groundwater elevations has been included as Appendix D.

### 6.0 CONCLUSIONS AND RECOMMENDATIONS

In January/February 1998, four hundred and two (402) tons of petroleum-contaminated soil was excavated from the AOI facility located at the southeast corner Main and West Ames Streets, Mexico, New York. This excavation activity



### 6.0 CONCLUSIONS AND RECOMMENDATIONS (Cont'd)

appears to have successfully removed accessible petroleum-contaminated soil and source areas located on the site. Following petroleum-contaminated soil excavation, four quarters of groundwater monitoring have been conducted at monitoring wells MW-1 through MW-7. This monitoring event serves as part four of the four part monitoring program. Results from laboratory analyses conducted on the groundwater samples collected on February 4, 1999 and during the previous three quarters indicate compliance with NYSDEC Water Quality Standards and Guidance Values for the *chemicals of concern* with the exception of MW-5. Various concentrations of Benzene have been detected in MW-5. In addition, monitoring wells MW-2, 4 and 5 have been found to contain low levels of MTBE, a recent compound of interest to the NYSDEC.

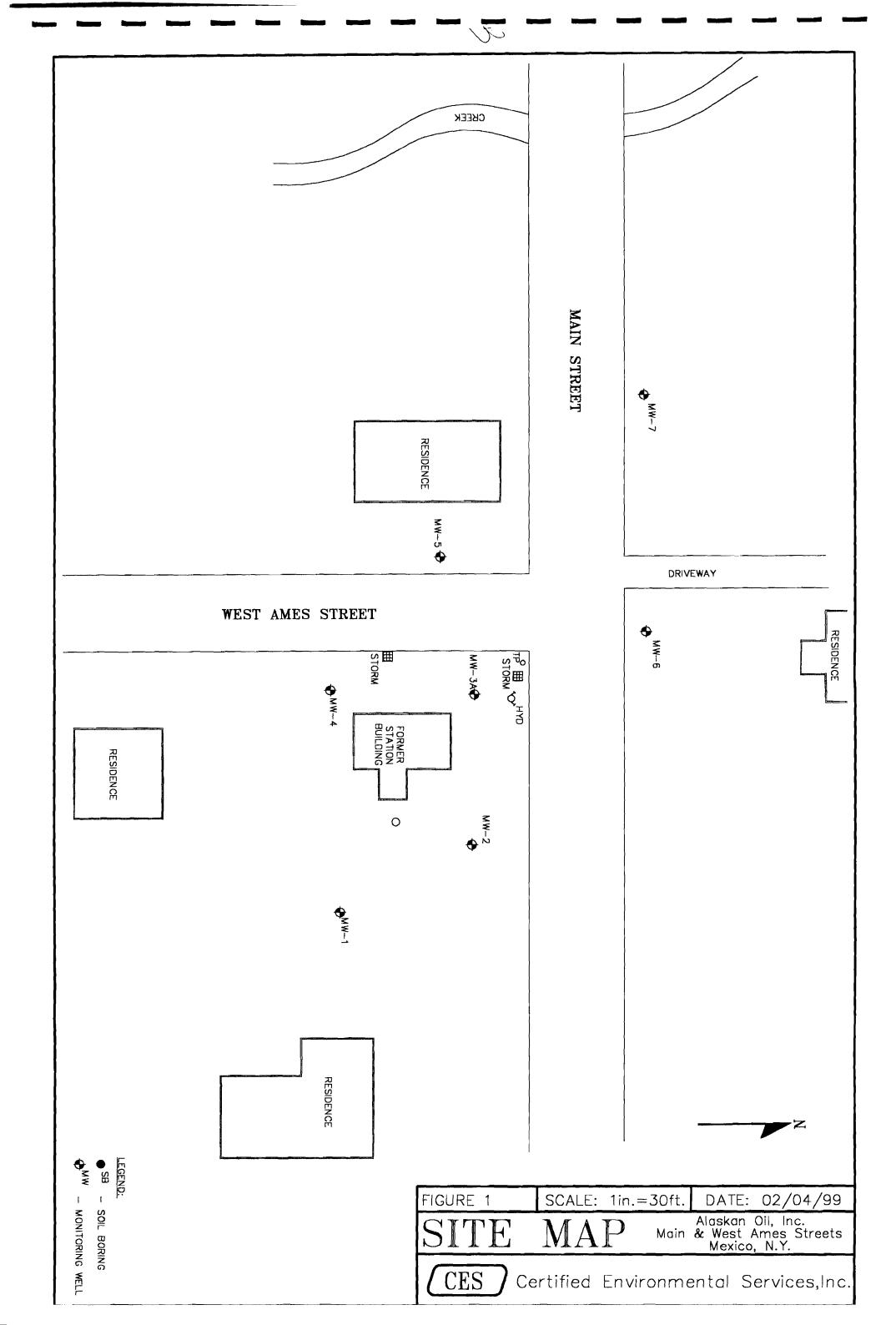
The contoured groundwater elevation data illustrates a northwesterly flow pattern. Evaluation of nearby receptors reveals that the site and vicinity is serviced with a municipal water supply. The residence located across West Ames Street is cross gradient from the site. Monitoring well MW-5 is located in close proximity to the residence. Both storm and sanitary sewers as well as water lines are located in Route 104 and/or West Ames Streets.

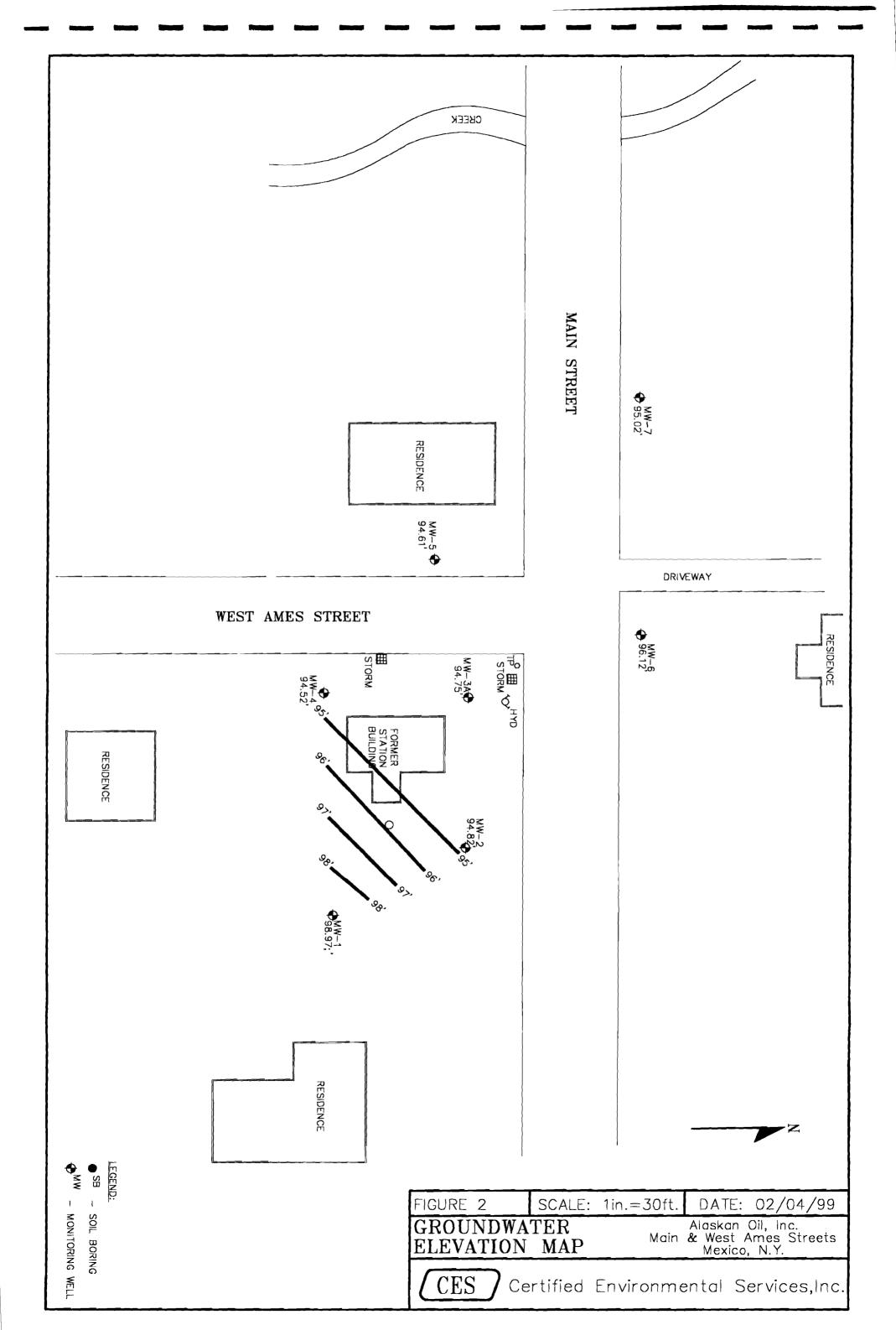
In order to pursue Tier 1 closure of the site, AOI proposes to address the presence of Benzene in MW-5 and MTBE in MW-2, 4, and 5 by utilizing Oxygen Releasing Compound (ORC) socks or a similar product. Use of ORC is intended to reduce the low level contamination concentrations in the monitoring wells. The socks are proposed to be placed in MW-2, 4 and 5 in March 1999 and remain in the wells until July 1999. In August 1999 dissolved oxygen concentrations will be measured in the field at monitoring wells MW-1 through MW-7. If treated wells yield dissolved oxygen concentrations relatively similar to the other monitoring wells they will be sampled for final closure. If the results from laboratory analyses conducted on the groundwater samples collected from these wells in August 1999 indicate compliance with Tier I target values for the *chemicals of concern*, Tier I closure without monitoring will be requested. Currently however, Tier I closure is requested with continued monitoring as the site itself requires no additional source removal.



# APPENDIX A

Figure 1 - Site Plan
Figure 2 - 1<sup>ST</sup> Quarter 1999 Groundwater Elevation Map







# **APPENDIX B**

**Summary of Groundwater Monitoring Laboratory Analytical Results** 



# Summary of Groundwater Analytical Data for MW-1

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th 1998	1st 1999
of	Quality Standard &	(in ug/L)	(in ug/L)	(in ug/L)	(in ug/L)	(in ug/L
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	-	 -	-	< 5.0

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

The higher concentration of Naphthalene is reported in all cases.

Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100



# Summary of Groundwater Analytical Data for MW-2

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th 1998	1st 1999
■ of	Quality Standard &	(in ug/L)				
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
<ul><li>O-Xylene</li></ul>	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	 	_	-	56

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

The higher concentration of Naphthalene is reported in all cases.

Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100



# Summary of Groundwater Analytical Data for MW-3A

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th 1998	1st 1999
of	Quality Standard &	(in ug/L)				
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	_	 -	-	< 5.0

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

The higher concentration of Naphthalene is reported in all cases.

Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100



# Summary of Groundwater Analytical Data for MW-4

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th 1998	1st 1999
of	Quality Standard &	(in ug/L)				
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/01/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	-	_	_	-	152

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

The higher concentration of Naphthalene is reported in all cases.

Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100



## Summary of Groundwater Analytical Data for MW-5

Chemicals	NYSDEC Water	1st	1st 1998		3rd 1998	4th 1998	1st 1999
of	Quality Standard &	(in ug/L)					
Concern	Guidance Values	02/05/98	03/23/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	51	14	< 0.7	16	7.3	5.9
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	NA NA	< 5	< 5	< 5	< 5
METHYL-T-BUTYL ETHER							99

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

The higher concentration of Naphthalene is reported in all cases.

Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100



# Summary of Groundwater Analytical Data for MW-6

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th1998	1st 1999
of	Quality Standard &	(in ug/L)				
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	_	_	 <u>-</u>	< 5.0

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.

- The higher concentration of Naphthalene is reported in all cases.
  - Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100
- Note: Petroleum-contaminated soil was removed from the site in January 1998



# Summary of Groundwater Analytical Data for MW-7

Chemicals	NYSDEC Water	1st 1998	2nd 1998	3rd 1998	4th1998	1st1999
of	Quality Standard &	(in ug/L)				
Concern	Guidance Values	02/05/98	05/29/98	08/04/98	11/20/98	02/04/99
Benzene	0.7 ug/L	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Toluene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
M-Xylene & P-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
O-Xylene	5 ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	20 ug/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzo(a)Pyrene	10 ug/L	< 5	< 5	< 5	< 5	< 5

METHYL-T-BUTYL ETHER	50 ug/L	 -	_	_	< 5.0	

BTEX and MTBE analyzed in accordance with USEPA Method 8021

NS = Not Sampled

- Naphthalene analyzed in accordance with USEPA Method 8021 and 8100.
  - The higher concentration of Naphthalene is reported in all cases.
- Benzo(a)Pyrene analyzed in accordance with USEPA Method 8100
  - Note: Petroleum-contaminated soil was removed from the site in January 1998



# **APPENDIX C**

Results from Laboratory Analyses: 1<sup>ST</sup> Quarter 1999 Sampling Event February 4, 1999

#### REPORT OF ANALYSES

ALASKAN OIL, INC. 120 WILKINSON ST.

SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

SAMPLE NUMBER- 182191 SAMPLE ID- MW-1

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE MATRIX- WA TIME SAMPLED- 1315 RECEIVED BY- DJS TYPE SAMPLE- Grab

Page 1 of 2

		SAMPLE PREP	ANALYSIS		
ANALYSIS	METHOD	DATE BY	DATE	TIME BY	RESULT UNITS
EPA 8021 Scan	EPA 8021		02/18/99	BLD	
Benzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 0.7 ug/L
Toluene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
Ethylbenzene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
m-Xylene & p-Xylene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
o-Xylene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0  ug/L
Isopropylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0  ug/L
n-Propylbenzene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
1,3,5-Trimethylbenzene	EPA 8021		02/18/99	BLD	< 1.0 ug/L
tert-Butylbenzene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
1,2,4-Trimethylbenzene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
sec-Butylbenzene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
p-Isopropyltoluene	EPA 8021		02/18/99	BLD	< 1.0  ug/L
n-Butylbenzene	EPA 8021		02/18/99	BLD	< 1.0 ug/L
Naphthalene	EPA 8021		02/18/99	BLD	< 5.0  ug/L
Methyl-t-Butyl Ether	EPA 8021		02/18/99	BLD	< 5.0  ug/L
EPA 8100 Scan	EPA 8100	02/11/99 BJC	02/20/99	KMS	
Naphthalene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
Acenaphthylene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
Acenaphthene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
Fluorene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L

1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

Page 2 of 2

CONTINUATION OF DATA FOR SAMPLE NUMBER 182191

			SAMPLE PREP	ANALYSIS		
	ANALYSIS	METHOD	DATE BY	DATE TIME	BY R	ESULT UNITS
8						
	Phenanthrene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Anthracene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
-	Fluoranthene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Pyrene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Benzo(a) Anthracene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Chrysene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Benzo(b) Fluoranthene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Benzo(k)Fluoranthene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Benzo(a) Pyrene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L
	Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/20/99	KMS	< 5 ug/L

NYSDOH LAB ID NO. 11246 APPROVED BY:



# MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107 29882

	00 1 000
ILIENT: ALASKAN OIL. INC.	LOG NO 182191
CONTACT: RICHARD NEUGEBAUER	WELL NO. MW - /
LOCATION: AOI/PEF # 358 MEXICO, N.Y.	WELL TYPE/SIZE: 2" PVC
WELL PURGING & SAMPLING: Date: 2/4/99 Purge Start Time:	//oo_ Purge End Time: i//o
Total Well Depth 14.60 # Well Volumes Purged 2  Purged Pur	color clr / lr. un / lr. lag
Well Volume 1.8 Final Depth to Water 3.13	Odor None
	5 Date 2 /4/99
WEATHER CONDITIONS: Kain TEMP. 40° WIND 5	mph
FIELD PARAMETERS: pH pH Calibration	Conductivity Temperature
initial Reading @ 4.0 Std =4.0	5°c
Intermediate Reading @ 7.0 Std = 7.0	Redox
'inal Reading $\frac{7.7}{2}$ @ $\frac{10.0}{2}$ Std = $\frac{10.0}{2}$	
TAMPLE PRESERVATION:  Date Time By	WEWLIN D. DOLLE
Treservative: [] H <sub>2</sub> SO <sub>1</sub>	doted to 4-C
Cother (Identify)	mi
"as Sample Filtered? XX No	1 Time :
SAMPLE CONTAINERS & QUANTITIES:	
	with Teflon Liner 2
PARAMETERS:	
NYSDEC Part 360 Routine	☐ EPA 502.2 ☐ EPA 601/602
OTES: QUARTERLY SAMPLING	
V · 2 2	
ollected By Kang Kove Date	2/4/99
Delivered By Keny K. Kone Date	2/4/99 Time 16/5
eceived By Deborah Junes Date 2	14 99 Time 16/5





### REPORT OF ANALYSES

ALASKAN OIL, INC. 120 WILKINSON ST. PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

SAMPLE NUMBER- 182192 SAMPLE ID- MW-2

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

SAMPLE MATRIX- WA TIME SAMPLED- 1330

RECEIVED BY- DJS TYPE SAMPLE- Grab

Page 1 of 2

		SAMPLE PREP	ANALYSIS		
ANALYSIS	METHOD	DATE BY	DATE	TIME BY	RESULT UNITS
EPA 8021 Scan	EPA 8021		02/18/99	BLD	
Benzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 0.7  ug/L
Toluene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0  ug/L
Ethylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
m-Xylene & p-Xylene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
o-Xylene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
Isopropylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0  ug/L
n-Propylbenzene	EPA 8021		02/18/99	BLD	< 1.0 ug/L
1,3,5-Trimethylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
tert-Butylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
1,2,4-Trimethylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
sec-Butylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
p-Isopropyltoluene	EPA 8021		02/18/99	BLD	< 1.0 ug/L
n-Butylbenzene	EPA 8021		02/18/99	$\mathtt{BLD}$	< 1.0 ug/L
Naphthalene	EPA 8021		02/18/99	BLD	< 5.0  ug/L
Methyl-t-Butyl Ether	EPA 8021		02/18/99	$\mathtt{BLD}$	56 ug/L
EPA 8100 Scan	EPA 8100	02/11/99 BJC	02/18/99	KMS	
Naphthalene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Acenaphthylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Acenaphthene	EPA 8100	02/11/99 BJC		KMS	< 5 ug/L
Fluorene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

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CONTINUATION OF DATA FOR SAMPLE NUMBER 182192

		SAMPLE PREP	ANALYSIS		
ANALYSIS	METHOD	DATE BY	DATE	TIME BY	RESULT UNITS
Phenanthrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Chrysene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(b) Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(k)Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a) Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

NYSDOH LAB ID NO. 11246 APPROVED BY:



## MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107

) 478-2374 Fax (315) 478-2107 29882

TTTTTT	LOG NO
TIENT: ALASKAN OII. INC.	- <b>a</b>
CONTACT: RICHARD NEUGEBAUER	WELL NO. MW - Z
OCATION: AOI/PEF # 358 MEXICO, N.Y.	WELL TYPE/SIZE: 2" PVC
WELL PURGING & SAMPLING: Date: 2/4/99 Purge Start Time:	///5 Purge End Time: //2/
Total Well Depth 14.70 # Well Volumes Purged 2	color ch / fr. log / brn
Total Well Depth 14.70 # Well Volumes Purged Project Project # Total Volume Purged # Project Project # Total Volume Purged # Total V	3 gel Turbidity L / M / H
Well Volume 1.4 Final Depth to Water 5.	97 Odor: None
urge Method BAILER SAMPLE COLLECTED: Time /	330 Date 2 /4/99
WEATHER CONDITIONS: 290 TEMP. 40° WIND	5 mph
FIELD PARAMETERS: pH pH Calibration	Conductivity Temperature
nitial Reading @ 4.0 Std =4.0	
Intermediate Reading @ 7.0 Std = 7.0	Redox
inal Reading $\frac{7.3}{2.3}$ @ $10.0$ Std = $10.0$	
SAMPLE PRESERVATION:	
Time 1330 By	
Treservative: [] H_SO, [] HNO, [] NaOH XH HCl [] Na <sub>2</sub> S <sub>2</sub> O, XH (	Cooled to 4°C
Other (Identify)	
Tas Sample Filtered? XX No	Тіше:
SAMPLE CONTAINERS & QUANTITIES:	
	with Teflon Liner 2 Glass w/Teflon Liner
PARAMETERS:	
NYSDEC Part 360 Routine	☐ EPA 502.2 ☐ EPA 601/602
CTES: QUARTERLY SAMPLING	
ollected By Kenn. R. Long Date	2/4/99
Delivered By Kem R. Kone Date	2/4/99 Time 1615
eceived By Deborah Squires Date 2	1115

#### REPORT OF ANALYSES

ALASKAN OIL, INC. 120 WILKINSON ST.

SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

SAMPLE NUMBER- 182193 SAMPLE ID- MW-3A

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE MATRIX- WA TIME SAMPLED- 1345 RECEIVED BY- DJS TYPE SAMPLE- Grab

Page 1 of 2

			SAMPLE	PREP	ANALYSIS				
_ A	NALYSIS	METHOD	DATE	BY	DATE	TIME	BY	RESULT	UNITS
Е	PA 8021 Scan	EPA 8021			02/18/99		BLD		
В	enzene	EPA 8021			02/18/99		$_{ m BLD}$	< 0.7	ug/L
<b>T</b>	oluene	EPA 8021			02/18/99		$_{ m BLD}$	< 1.0	ug/L
E	thylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
m	-Xylene & p-Xylene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
O	-Xylene	EPA 8021			02/18/99		$_{ m BLD}$	< 1.0	ug/L
I	sopropylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
n	-Propylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
1	,3,5-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
t	ert-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
1	,2,4-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
s	ec-Butylbenzene	EPA 8021			02/18/99		$_{ m BLD}$	< 1.0	ug/L
<b>p</b>	-Isopropyltoluene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
n	-Butylbenzene	EPA 8021			02/18/99		$_{ m BLD}$	< 1.0	ug/L
N	aphthalene	EPA 8021			02/18/99		BLD	< 5.0	ug/L
M	ethyl-t-Butyl Ether	EPA 8021			02/18/99		BLD	< 5.0	ug/L
E	PA 8100 Scan	EPA 8100	02/11/9	9 BJC	02/18/99		KMS		
N	aphthalene	EPA 8100	02/11/9	9 BJC	02/18/99		KMS	< 5	ug/L
_ A	cenaphthylene	EPA 8100	•		02/18/99		KMS	< 5	ug/L
A	cenaphthene	EPA 8100			02/18/99		KMS		ug/L
F	luorene	EPA 8100	02/11/9	9 BJC	02/18/99		KMS	< 5	ug/L

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CONTINUATION OF DATA FOR SAMPLE NUMBER 182193

ANALYSIS	METHOD	SAMPLE PREP DATE BY	ANALYSIS DATE	TIME BY	RESULT UNITS
Phenanthrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Chrysene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(b) Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(k)Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

NYSDOH LAB ID NO. 11246

APPROVED BY:



## MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107

	<u>~ 100</u> 2
TIENT: ALASKAN OIL. INC.	LOG NO182193
CONTACT: RICHARD NEUGEBAUER	WELL NO. MW - 3A
LOCATION: AOI/PEF # 358 MEXICO, N.Y.	WELL TYPE/SIZE: 2" PVC
WELL PURGING & SAMPLING: Date: 2/4/99 Purge Start Time:	//25 Purge End Time: _//3/
Total Well Depth 13.85 # Well Volumes Purged 2	Color de 1 che 1/1. beg
)epth to Water 3.93 Total Volume Purged Purged	3 gd/. Turbidity L /L /M
	6 Odar None
'urge Method BAILER SAMPLE COLLECTED: Time /3	Date 2/4/99
WEATHER CONDITIONS: Rain TEMP. 40' WIND 5	mph
	Conductivity Temperature
Initial Reading @ 4.0 Std =4.0	
Intermediate Reading @ 7.0 Std = 7.0	Redox
inal Reading $\frac{7.3}{2}$ @ $10.0$ Std = $10.0$	
SAMPLE PRESERVATION:	
Date	KEVIN_R.ROWE
reservative: ☐ H₂SO. ☐ HNO, ☐ NaOH X HCl ☐ Na₂S.23 X C	Cooled to 4° C
T Other (Identify)	
Tas Sample Filtered? XXI No	Time:
SAMPLE CONTAINERS & QUANTITIES:	
	with Teflon Liner 2
PARAMETERS: [] See Attached Proposal/List	
NYSDEC Part 360 Routine	
OTES: QUARTERLY SAMPLING	
1.20	1 (
ollected By Remy K. Kome Date	2/4/99
Delivered By Keny K. Kare Date	2/4/99 Time 16/5
eceived By Deborah Squires Date 2	14/99 Time 1615

#### REPORT OF ANALYSES

ALASKAN OIL, INC. 120 WILKINSON ST.

SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE NUMBER- 182194 SAMPLE ID- MW-4

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

SAMPLE MATRIX- WA TIME SAMPLED- 1400

RECEIVED BY- DJS

TYPE SAMPLE- Grab

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			SAMPLE P	REP	ANALYSIS					
<b>*</b>	ANALYSIS	METHOD	DATE	ВҮ	DATE	TIME	ВҮ	RES	ULT	UNITS
	EPA 8021 Scan	EPA 8021			02/18/99		BLD			
-	Benzene	EPA 8021			02/18/99		BLD	<	0.7	ug/L
	Toluene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	Ethylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	m-Xylene & p-Xylene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	o-Xylene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	Isopropylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	n-Propylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
-	1,3,5-Trimethylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
_	tert-Butylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	1,2,4-Trimethylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	sec-Butylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	p-Isopropyltoluene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	n-Butylbenzene	EPA 8021			02/18/99		BLD	<	1.0	ug/L
	Naphthalene	EPA 8021			02/18/99		BLD	<	5.0	${\tt ug/L}$
	Methyl-t-Butyl Ether	EPA 8021			02/18/99		BLD		152	ug/L
	EPA 8100 Scan	EPA 8100	02/11/99	BJC	02/18/99		KMS			
	Naphthalene	EPA 8100	02/11/99	BJC	02/18/99		KMS		< 5	ug/L
سندف	Acenaphthylene	EPA 8100	02/11/99	BJC	02/18/99		KMS		< 5	ug/L
	Acenaphthene	EPA 8100	02/11/99	BJC	02/18/99		KMS		< 5	ug/L
	Fluorene	EPA 8100	02/11/99	BJC	02/18/99		KMS		< 5	ug/L

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CONTINUATION OF DATA FOR SAMPLE NUMBER 182194

		SAMPLE PREP	ANALYSIS		
ANALYSIS	METHOD	DATE BY	DATE	TIME BY	RESULT UNITS
Phenanthrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Chrysene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(b) Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(k) Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(a) Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

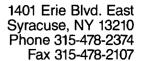
NYSDOH LAB ID NO. 11246 APPROVED BY:



# MONITORING WELL SAMPLE CHARACTERIZATION

1401 Erie Boulevard East Syracuse, New York 13210

Services, Inc.	& CHAIN-OF-CUSTODY Ph (315) 478-2374 Fax (315) 478-2107
CONTACT: ALASKAN OIL. INC.  CONTACT: RICHARD NEUGEBAUER  CATION: AOI/PEF # 358 MEXICO,	LOG NO 182194 WELL NO. MW - 4
Total Well Depth 17,00  apth to Water 5.95  Well Volume 1.8  arge Method BAILER  WEATHER CONDITIONS:  FIELD PARAMETERS: pH  aitial Reading  Intermediate Reading	pH Calibration Conductivity Temperature  @ 4.0 Std = 4.0
TAMPLE PRESERVATION:  Sate	Time /400 By KEVIN R.ROWE  I NaOH XH HCl I Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> XM Cooled to 4° C
Sample Filtered? XX No  SAMPLE CONTAINERS & QUANTITIES:  Quart Jar (Glass w/Teflon Line  500 ml Plastic Cylinder  G 1/2 Gallon (Plastic)	
PARAMETERS:     See Attached   NYSDEC Part 360 Routine	Proposal/List  NYSDOH 310-13 XN EPA 8021
Collected By Semy	Love Date 2/4/99  Love Date 2/4/99 Time 1615



#### REPORT OF ANALYSES

ALASKAN OIL, INC.

120 WILKINSON ST. SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE NUMBER- 182195 SAMPLE ID- MW-5

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

SAMPLE MATRIX- WA TIME SAMPLED- 1415 RECEIVED BY- DJS

TYPE SAMPLE- Grab

Page 1 of 2

	ANALYSIS	METHOD	SAMPLE P		ANALYSIS DATE	TIME	ВУ	RESULT	UNITS
	EPA 8021 Scan	EPA 8021			02/18/99		BLD		
-	Benzene	EPA 8021			02/18/99		BLD	5.9	ug/L
-	Toluene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Ethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	m-Xylene & p-Xylene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	o-Xylene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Isopropylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	n-Propylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	1,3,5-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
_	tert-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	1,2,4-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	sec-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	p-Isopropyltoluene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	n-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Naphthalene	EPA 8021			02/18/99		BLD	< 5.0	ug/L
	Methyl-t-Butyl Ether	EPA 8021			02/18/99		BLD	99	ug/L
	EPA 8100 Scan	EPA 8100	02/11/99	BJC	02/18/99		KMS		
	Naphthalene	EPA 8100	02/11/99	BJC	02/18/99		KMS	< 5	ug/L
-	Acenaphthylene	EPA 8100	02/11/99	BJC	02/18/99		KMS	< 5	ug/L
-	Acenaphthene	EPA 8100	02/11/99	BJC	02/18/99		KMS	< 5	ug/L
	Fluorene	EPA 8100	02/11/99	BJC	02/18/99		KMS	< 5	ug/L

1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

Page 2 of 2

CONTINUATION OF DATA FOR SAMPLE NUMBER 182195

	ANALYSIS	METHOD	SAMPLE PREP DATE BY	ANALYSIS DATE TIM	E BY	RESULT UNITS
_	Phenanthrene	EPA 8100	02/11/99 BJC		KMS	< 5 ug/L
	Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
_	Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(a)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Chrysene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(b) Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(k)Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(a) Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
الت	Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

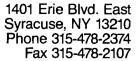
NYSDOH LAB ID NO. 11246 APPROVED BY:



# MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107

LIENT: ALASKAN OIL. INC.  CONTACT: RICHARD NEUGEBAUER  OCATION: AOI/PEF # 358 MEXICO, N.Y.	LOG NO
Total Well Depth 13.70 # Well Volumes Purged 2.5  epth to Water 3.53 Total Volume Purged Project  Well Volume   1.6 Final Depth to Water 3.5  urge Method BAILER SAMPLE COLLECTED: Time 19  WEATHER CONDITIONS: PH ph Calibration  paitial Reading @ 4.0 Std = 4.0	Color Chr 1 chr Itr. Ling  and day  Turbidity L 1 L 1M  Odor: No.1e  715  Date 2/4/99  5 mph
Intermediate Reading @ 7.0 Std = 7.0 inal Reading	Redox
Time ///5 By	Cooled to 4° C
	with Teflon Liner 2Glass w/Teflon Liner
PARAMETERS:     See Attached Proposal/List   NYSDEC Part 360 Routine   NYSDOH 310-13   XX EPA 8021   8270 (Base Neutrals)   DEPA 624   XX EPA 8100   DEPA 624   DEPA 8100   DEPA 8100   DEPA 624   DEPA 8100   DEPA 810	☐ EPA 502.2 ☐ EPA 601/602
pllected By Kenny Rome Date	2/4/49 2/4/99 Time 1615 14/99 Time 1615





#### REPORT OF ANALYSES

ALASKAN OIL, INC.

120 WILKINSON ST. SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE NUMBER- 182196 SAMPLE ID- MW-6

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

SAMPLE MATRIX- WA TIME SAMPLED- 1430 RECEIVED BY- DJS TYPE SAMPLE- Grab

Page 1 of 2

			SAMPLE PRE	ΞP	ANALYSIS				
-	ANALYSIS	METHOD	DATE	BY	DATE	TIME	ВҮ	RESULT	UNITS
	EPA 8021 Scan	EPA 8021			02/18/99		BLD		
na inclina	Benzene	EPA 8021			02/18/99		BLD	< 0.7	ug/L
	Toluene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Ethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	m-Xylene & p-Xylene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	o-Xylene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Isopropylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	n-Propylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
-	1,3,5-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
-	tert-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	1,2,4-Trimethylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	sec-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
-	p-Isopropyltoluene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	n-Butylbenzene	EPA 8021			02/18/99		BLD	< 1.0	ug/L
	Naphthalene	EPA 8021			02/18/99		BLD	< 5.0	ug/L
	Methyl-t-Butyl Ether	EPA 8021			02/18/99		BLD	< 5.0	ug/L
	EPA 8100 Scan	EPA 8100	02/11/99 B	3JC	02/18/99		KMS		
	Naphthalene	EPA 8100	02/11/99 E	3JC	02/18/99		KMS	< 5	ug/L
-	Acenaphthylene	EPA 8100	02/11/99 E	3JC	02/18/99		KMS	< 5	ug/L
	Acenaphthene	EPA 8100	02/11/99 B	3JC	02/18/99		KMS	< 5	ug/L
	Fluorene	EPA 8100	02/11/99 B	3JC	02/18/99		KMS	< 5	ug/L

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Page 2 of 2

CONTINUATION OF DATA FOR SAMPLE NUMBER 182196

			SAMPLE PREP	ANALYSIS		
	ANALYSIS	METHOD	DATE BY	DATE TIM	ME BY	RESULT UNITS
	Phenanthrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
-	Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
•	Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(a)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Chrysene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(b)Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(k)Fluoranthene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(a) Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
•	Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
-	Dibenzo(a,h)Anthracene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L
	Benzo(ghi)Perylene	EPA 8100	02/11/99 BJC	02/18/99	KMS	< 5 ug/L

NYSDOH LAB ID NO. 11246

APPROVED BY:

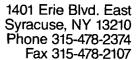


# Certified Environmental Services, Inc.

# MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107

	<u> </u>
LIENT: ALASKAN OIL INC	LOG NO 182196
CONTACT: RICHARD NEUGEBAUER	WELL NO. MW - 6
CONTACT: ACI/PEF # 358 MEXICO, N.Y.	WELL TYPE/SIZE: 2" PVC
JCATION:	WELLE TIPS/STAR.
WELL PURGING & SAMPLING: Date: 2/4/99 Purge Start Time	: 1210 Purge End Time: 1223
Total Well Depth 13.85 # Well Volumes Purged 3	Color Chr 1 chr 1/1.6m
apth to Water 2.66 Total Volume Purged 6	6 jel Turbidity L / L / M
Well Volume 1.8 Final Depth to Water 2.0	69 Odor None
rge Method BAILER SAMPLE COLLECTED: Time /4	30 Date 2/4/99
WEATHER CONDITIONS: Rain TEMP. 40' WIND	5 mph
FIELD PARAMETERS: pH pH Calibration	
itial Reading @ 4.0 Std =	
Intermediate Reading @ 7.0 Std = 7.0	Redox
: .nal Reading $\frac{7.7}{2}$ @ $10.0$ Std = $10.0$	<del></del>
CAMPLE PRESERVATION:	
Time 14.30 By	<del>_</del>
Treservative: [ H2SO4 [ HNO3 [ NaOH XM HCl [ Na2S403 XM	Cooled to 4° C
TOther (Identify)	
The Sample Filtered? XX No	Time:
SAMPLE CONTAINERS & QUANTITIES:	*
	l with Teflon Liner (Glass w/Teflon Liner
PARAMETERS: [] See Attached Proposal/List	
[ NYSDEC Part 360 Routine	<pre>EPA 502.2 EPA 601/602</pre>
tites: QUARTERLY SAMPLING QC Collected	
1.00	-//
Callected By Range Date Date	2/4/99
Delivered By Rang K Kon Date Date	2/4/99 Time 16/5
I_ceived By Deborah Saures Date	2/4/99 Time (6.5





#### REPORT OF ANALYSES

ALASKAN OIL, INC. PROJECT NAME: AOI/PEF, #358-Mexico

120 WILKINSON ST. DATE: 02/23/99 SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

SAMPLE NUMBER- 182197 SAMPLE ID- MW-7 SAMPLE MATRIX- WA
DATE SAMPLED- 02/04/99 TIME SAMPLED- 1445
DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe RECEIVED BY- DJS

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe TYPE SAMPLE- Grab

Page 1 of 2

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS DATE BY DATE	TIME BY RESULT UNI	TS
EPA 8021 Scan	EPA 8021	02/18/99	BLD	
Benzene	EPA 8021	02/18/99	BLD < 0.7 ug/	L
Toluene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
Ethylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
m-Xylene & p-Xylene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
o-Xylene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
Isopropylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
n-Propylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
1,3,5-Trimethylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
tert-Butylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
1,2,4-Trimethylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
sec-Butylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
p-Isopropyltoluene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
n-Butylbenzene	EPA 8021	02/18/99	BLD < 1.0 ug/	L
Naphthalene	EPA 8021	02/18/99	BLD < 5.0 ug/	L
Methyl-t-Butyl Ether	EPA 8021	02/18/99	BLD < 5.0 ug/	L
EPA 8100 Scan	EPA 8100	02/11/99 BJC 02/18/99	KMS	
Naphthalene	EPA 8100	02/11/99 BJC 02/18/99	KMS < 5 ug/	L
Acenaphthylene	EPA 8100	02/11/99 BJC 02/18/99	KMS < 5 ug/	L
Acenaphthene	EPA 8100	02/11/99 BJC 02/18/99	KMS $< 5 \text{ ug}/$	L
Fluorene	EPA 8100	02/11/99 BJC 02/18/99	KMS < 5 ug/	L

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### REPORT OF ANALYSES

ALASKAN OIL, INC. 120 WILKINSON ST.

SYRACUSE, NY 13204-

Attn: MR. RICH NEUGEBAUER

PROJECT NAME: AOI/PEF, #358-Mexico

DATE: 02/23/99

SAMPLE NUMBER- 182198 SAMPLE ID- Trip Blank

DATE SAMPLED- 02/04/99

DATE RECEIVED- 02/04/99 SAMPLER- Kevin R. Rowe

TIME RECEIVED- 1615 DELIVERED BY- Kevin R. Rowe

SAMPLE MATRIX- WA

TIME SAMPLED- 0800

RECEIVED BY- DJS

TYPE SAMPLE- Grab

Page 1 of 1

		ANALYSIS		
ANALYSIS	METHOD	DATE TIME	E BY	RESULT UNITS
EPA 8021 Scan	EPA 8021	02/18/99	BLD	
Benzene	EPA 8021	02/18/99	BLD	< 0.7  ug/L
Toluene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
Ethylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
m-Xylene & p-Xylene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
o-Xylene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
Isopropylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
n-Propylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
1,3,5-Trimethylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
tert-Butylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
1,2,4-Trimethylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
sec-Butylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
p-Isopropyltoluene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
n-Butylbenzene	EPA 8021	02/18/99	BLD	< 1.0 ug/L
Naphthalene	EPA 8021	02/18/99	BLD	< 5.0 ug/L
Methyl-t-Butyl Ether	EPA 8021	02/18/99	BLD	< 5.0 ug/L

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(Terms and Conditions On Reverse Side)

NYSDOH LAB ID NO. 11246

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CONTINUATION OF DATA FOR SAMPLE NUMBER 182197

		SAMPLE P	REP	ANALYSIS			
ANALYSIS	METHOD	DATE	BY	DATE	TIME B	Y RESULT	UNITS
Phenanthrene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Anthracene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Fluoranthene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Pyrene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Benzo(a)Anthracene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Chrysene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Benzo(b) Fluoranthene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Benzo(k)Fluoranthene	EPA 8100	02/11/99	BJC	02/18/99	ΚM	IS < 5	ug/L
Benzo(a) Pyrene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Indeno(1,2,3-cd)Pyrene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Dibenzo(a,h)Anthracene	EPA 8100	02/11/99	BJC	02/18/99	KM	IS < 5	ug/L
Benzo(ghi)Perylene	EPA 8100	02/11/99	BJC	02/18/99	KM	S < 5	ug/L

NYSDOH LAB ID NO. 11246 APPROVED BY:



## MONITORING WELL SAMPLE CHARACTERIZATION & CHAIN-OF-CUSTODY

1401 Erie Boulevard East Syracuse, New York 13210 Ph (315) 478-2374 Fax (315) 478-2107

<b>—</b>			<u> </u>
LIENT: ALASKAN OIL. INC.		LOG NO	-182197
CONTACT: RICHARD NEUGEBAUER		WELL NO. M	
OCATION: AOI/PEF # 358 MEXICO,			E: 2" PVC
•		=======================================	
WELL PURGING & SAMPLING: Date:	: <u>2/4/99</u> Purge Start	Time: 1230 Purge	End Time: 1242
Total Well Depth 12.90	# Well Volumes Purged	2.5 Colo	= clr 1/r. 69 1 bry
epth to Water /./3			idity 1 / M //f
Well Volume /- 9	Final Depth to Water		· None
rge Method BAILER	SAMPLE COLLECTED: Time		2/4/99
WEATHER CONDITIONS:	Rain TEMP. 40'	WIND 5 mph	
FIELD PARAMETERS: pH	pH Calibration	Conductivi	ty Temperature
nitial Reading	@ 4.0 Std =4.	.0	_ <del>-3°c</del> _
Intermediate Reading	@ 7.0 Std =		Redox
inal Reading 7.3	@ 10.0 Std = 10.	.0	
AMPLE PRESERVATION:			
Date	Time <u>1445</u>	By KEVIN R.ROWE	
reservative: [] H <sub>2</sub> SO <sub>4</sub> [] HNO <sub>3</sub> [	] NaOH ¼∰ HCl	XM Cooled to 4° C	
Other (Identify)			
as Sample Filtered? XXI No	☐ Yes Date:	Time:	
SAMPLE CONTAINERS & QUANTITIES:			
Quart Jar (Glass w/Teflon Line 1 500 ml Plastic Cylinder 1 ½ Gallon (Plastic)	r) <u>2</u> XX 40 m —	d Vial with Teflon I Jar (Glass w/Teflon Er	
PARAMETERS:	Proposal/List		
	NYSDOH 310-13 XX EPA EPA 624 XX EPA	8021	02
TES: QUARTERLY SAMPLING			
	70	ate 2/1/19	
ullected By		1./	=: //./-
Delivered By King K.	<u> </u>	2/4/00	Time /6/5  Time /6/5
eceived By Deborah Sq	unes Di	ate <u>9/9/99</u>	Time



1401 Erie Blvd. East Syracuse, NY 13210 Phone 315-478-2374 Fax 315-478-2107

29882

	Ø 100°
CLIENT: Alaskan Oil, Inc.  CONTACT: Richard Neugelaver	
SAMPLING INFORMATION:  SAMPLE ID:	AOE PEF#358 Mexico, INY
SAMPLE TYPE:   Soil   Water   Oil   COLLECTION TECHNIQUE:   Composite   Grab   Wipe	
COMPOSITE: (Start) Date Time  (Finish) Date Time  GRAB: Date 2/4/44 Time	By
SAMPLE PRESERVATION:  Date 2/9/99 Time 0800  Preservative:   H2SO4   HNO3   NaOH PAC1    Other (Identify)	
SAMPLE CONTAINERS:	
☐ 500 ml Plastic Cylinder ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	Qty 40 ml Vial with Teflon Liner  Quart Jar (Glass w/o Teflon Liner)  Pint Jar (Glass w/o Teflon Liner)  Pint Jar (Glass w/o Teflon Liner)
PARAMETERS: See Attached Proposal/List	
NOTES: Quarterly Sampling	
Collected By Kang Kang  Delivered By Kang Kang  Received By	Date 2/4/99 Time  Date Time
Received By Deborah Squires	Date 2/4/99 Time 1615



# APPENDIX D

**Groundwater Elevation Data Summary** 



# **Groundwater Elevation Data**

# ALASKAN OIL, INC. MAIN & WEST AMES STREETS MEXICO, NEW YORK

Sample Location	Top of	Top of Screen Elevation	Groundwater Elevation Data					
	Casing Elevation		9/10/97	*2/05/98	5/29/98	8/4/98	11/20/98	2/04/99
MW-1	102.08	98.08	93.50	97.73	95.87	95.37	96.89	98.97
MW-2	100.75	96.75	92.85	94.19	93.55	93.77	94.74	94.82
MW-3	98.68	95.68	92.55	93.78	93.65	93.56	94.28	94.75
MW-4	101.47	97.47	92.71	94.93	94.46	94.57	94.80	94.52
MW-5	98.14	94.14	NA	94.09	93.59	93.50	94.00	94.61
MW-6	98.78	95.78	NA	95.73	93.91	93.55	95.26	96.12
MW-7	96.15	94.15	NA	95.90	93.15	92.89	93.53	95.02

Note: All measurements recorded in feet

\*Monitoring wells resurveyed by CES in February 1998

Survey benchmark: Top nut on hydrant at NW corner of parcel

Top of Casing Elevation is Top of PVC riser